

ABSTRACT OF THE DISCLOSURE

An ac generator comprising a rotor coil for generating a magnetic flux, a pole core disposed to cover the rotor coil and having pawl-shaped magnetic poles projecting in staggered and alternating relationship, permanent magnets disposed on both side surfaces of the pawl-shaped magnetic poles for reducing the leakage of the magnetic flux, and a fan for cooling. The permanent magnets are samarium-iron alloy magnets containing Ti and B, or plastic magnets made of magnet powder bonded together by a resin, bonded magnets of $\text{Sm}_{8.2} - \text{Fe}_{75.6} - \text{Ti}_{2.3} - \text{B}_{0.9} - \text{N}_{13}$. One portion of the side opposing to the pawl-shaped magnetic pole side surfaces of the permanent magnet may be resin-coated. A restricting means for restricting the displacement of the magnetic pole in the radial direction may be disposed in the vicinity of the tips of the magnetic poles.